

### REMARKS

This application was filed with 25 claims. Claims 1-14 were previously canceled, claims 15, 25, and 26 previously amended, and claims 26 and 27 previously added. Claims 17-24 were withdrawn from consideration in response to a Restriction Requirement. Thus, claims 15, 16 and 25-27 are currently pending.

### Further Amendment to Claim 15

Applicant has further amended claim 15 to clarify that step c) is also performed "in the computer". Thus steps b) and c) are performed in the computer, and then steps b) and c) which must be repeated per step d) are repeated in the computer.

### Interview Summary Record

On October 5, 2004 at 11:00 a.m. EST, the undersigned Attorney for Applicant conducted a scheduled telephone interview with Examiner Carolyn Smith and Examiner Arden Marshall. In the interest of a complete interview summary, Applicant will address each of the required elements as follows:

**1. A Brief Description Of The Nature Of Any Exhibit Shown Or Any Demonstration Conducted.**

The interview was telephonic and thus no exhibits were shown or demonstration conducted. The RESPONSE TO FINAL OFFICE ACTION AND CONFIRMATION OF INTERVIEW SCHEDULE previously filed by Applicant was discussed.

**2. An Identification Of The Claims Discussed.**

Independent claim 15 was discussed.

**3. An Identification Of The Specific Prior Art Discussed.**

U.S. Patent No. 5,935,783 to Gong et al. was discussed.

**4. An Identification Of The Principal Proposed Amendments Of A Substantive Nature Discussed.**

In view of Applicant's argument that claim 15 covered a computer-implemented process, Examiner Marshall suggested that it would further clarify the claim to add the phrase "in the computer" in step c), and Applicant agrees and has done so. It is understood that the Examiner has not conceded that this further amendment necessarily puts the claim in condition for allowance, but rather it more clearly defines the scope of the claim for reconsideration.

**5. A Brief Identification Of The General Thrust Of The Principal Arguments Presented To The Examiner.**

First, Examiner Smith indicated that the previously filed amendment to claim 15 clarified the claim sufficiently to eliminate the §112 rejection which had previously been made.

With regard to the substantive rejection based upon Gong et al., Applicant's Attorney pointed out that the method of claim 15 is directed to a data processing method that tends to provide improved efficiency and faster processing as compared to prior methods (see page 13 lines 12-20 of the specification). This computer-

implemented processing method is achieved by (a) providing a plurality of sequence reads into the computer; (b) categorizing within the computer the plurality of sequence reads into at least two subgroups of sequence reads based on an identifiable characteristic of the sequence reads in each subgroup; (c) matching within the computer sequence reads within each subgroup thereby creating assemblies of said sequence reads within each subgroup; and (d) repeating steps (b) and (c) with all the unassembled sequence reads and newly created assemblies, which repetition of steps (b) and (c) must again be performed within the computer.

Thus, an improved processing method is provided as contrasted to prior art processing where an entire batch of data is attempted to be matched without first categorizing into groups, then matching within the groups, then recategorizing, then rematching, as required by claim 15.

It was pointed out that the Gong et al. reference does not teach the sequence of steps required by claim 15.

Gong et al. instead appears to describe an experimental procedure that included a lot of human intervention and was undoubtedly carried out over a very long period of experimentation. Gong et al. has nothing to do with teaching efficient data processing methods.

It is respectfully submitted that the invention of amended claim 15, and those claims dependent therefrom, are not shown or suggested by the disclosure of Gong et al.

**6. A General Indication Of Any Other Pertinent Matters Discussed.**

None.

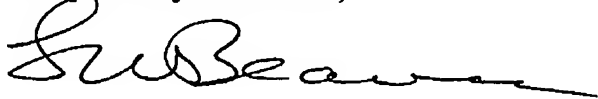
**7. General Results Of The Interview.**

Examiner Marshall indicated that the arguments presented raised significant questions which made it appropriate for the Gong et al. rejection to be reconsidered. The Examiner made no commitment that the rejection would be withdrawn, but only that it would be reconsidered.

**Summary**

In conclusion, it is respectfully submitted that with the clarifying amendments which have been made after the Final Office Action, the scope of claim 15 is clearly distinguished from any teaching of the Gong et al. reference, and accordingly reconsideration and an early indication of allowability is requested.

Respectfully submitted,



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**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this SUPPLEMENTAL RESPONSE TO FINAL OFFICE ACTION AND INTERVIEW SUMMARY RECORD is being transmitted to the Patent and Trademark Office via facsimile to fax number (703) 872-9306 on October 6, 2004.

  
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Claire R. Ulanoff

10-6-04  
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Date